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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,417	04/07/2004	Toshiyuki Kawashima	UNIU64.001DV1	7821

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EXAMINER
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ARBES, CARL J

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/820,417	<b>Applicant(s)</b> KAWASHIMA ET AL.	
	<b>Examiner</b> C. J. Arbes	<b>Art Unit</b> 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 5-9, 13-22 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-29 is/are allowed.
- 6) ☒ Claim(s) 1, 5-9, 13-17, 19-22 and 25 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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For the record the term "insulating" is misspelled in at least claim 17.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5-9 and 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language ... the wiring patterns under conditions such that at neither one of (a) nor (b) occurs: (a) the composite sheet is deformed to contact both the wiring layer and the insulating layer, and (b) the adherent sheet is fully permeated within the porous film... in claim 1 is held to make this claim unclear, vague and indefinite. First the claim is drawn such that the recitation is a negative and this in itself makes a claim which is not understood and hence gives the claim lack of clarity, definiteness and distinctness.

Even if this statement is not correct how can Applicants surmount the issue of supposing that both (a) and (b) does not occur and yet carry out the "pressing" step recited in the ultimate indent in said claim 1. That is there would nothing which can be completed. It cannot be understood what Applicants intend when they draw such claims. The metes and bounds of these claims are not properly nor adequately defined and hence are held to be properly rejected under 35 U.S.C. Section 112 (2nd Para).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5-9, 14-17, 19-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukutake et al (Pat No. 5,473,118); hereinafter Fukutake et al.

Fukutake et al teach a printed circuit board with an overlay film. The film consists of a composite porous fluoropolymer film coated with a thermoplastic or heat curing adhesive. Figure 3 shows at least a dielectric substrate (1) , electrical conductors (2) , a porous fluoropolymer film (3), an adhesive or adherent sheet (7) and a non- porous polymer film (8). Adhesive can be impregnated into the pores of the film (3) by means of heated rolls (Cf. Col 6). The overlay film can be laminated to a printed circuit board using a temperature of about 200 degrees Celsius with a compressive stress of about 10 KG/cm (2). (Cf. Col 8). Fukutake et al also teach that the porous film is filled with a solution comprising of polyimide powder mixed with dioxane, n-methyl pyrrolidine and dimethyl formamide (Cf. Col 8) It would have been obvious to fully permeate the porous film (3) with the adherent sheet (7) if in fact Fukutake et al do not expressly teach this limitation inasmuch as the completely filled porous film would be better able to function i.e. reduce cross-talk and increase signal transmission speed and to last longer in service. As applied to claims 6-9 it is believed that Fukutake et al teach substantially the same temperatures and pressures which are used to process the composite sheet. However if the ranges of pressures and/or temperatures are different in the claimed invention *vis-à-vis* the prior art it is held that one of ordinary skill in this art would practice the claimed invention using only the ordinary skill.

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Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 26-29 are held to be allowable.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. J. Arbes whose telephone number is 571-272-4563. The examiner can normally be reached on M, T, R and F from 8 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Vo, can be reached on 571-272-4563. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



C. J. Arbes  
Primary Examiner  
Art Unit 3729